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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,820	08/28/2001	James G. Fleming	6261.1/97639	7965

7590 07/02/2004  
Timothy D. Stanley  
Sandia National Laboratories  
P. O. Box 5800 - MS-0161  
Albuquerque, NM 87185-0161

EXAMINER
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MULPURI, SAVITRI

ART UNIT	PAPER NUMBER
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2812

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

A

# Supplemental Notice of Allowability

Application No.

09/941,820

Examiner

Savitri Mulpuri

Applicant(s)

FLEMING ET AL.

Art Unit

2812

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to exa. amdt 1/12/049 corrected exa. amdt prepared on 6/29/04.
  2. ☒ The allowed claim(s) is/are 61,63-70,73-76 and 80-83.
  3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
  4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) ☐ All b) ☐ Some\* c) ☐ None of the:
      1. ☐ Certified copies of the priority documents have been received.
      2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
      3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- \* Certified copies not received: \_\_\_\_\_.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
    - (a) ☐ The translation of the foreign language provisional application has been received.
  6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No. \_\_\_\_\_.
  - (b) ☐ including changes required by the proposed drawing correction filed \_\_\_\_\_, which has been approved by the Examiner.
  - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the margin according to 37 CFR 1.121(d).

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

- |  |   |
|--|---|
| 1 <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)                |
| 2 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                    | 6 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. <u>1/29/04</u> .        |
| 3 <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No. _____  | 7 <input checked="" type="checkbox"/> Examiner's Amendment/Comment <i>CORRECT VERSION</i> |
| 4 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input type="checkbox"/> Examiner's Statement of Reasons for Allowance                  |
|  | 9 <input type="checkbox"/> Other  |

*Savitri Mulpuri*  
Savitri Mulpuri  
Primary Examiner  
Art Unit: 2812

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr Hoheimer on 1/12/04. The application has been amended as follows:

Cancel claims 44-60

In claim 61, line 12 after "second material" add ---, wherein the first and the second materials are selected from the group consisting of polycrystalline silicon, amorphous silicon, silicon nitride, silicon dioxide, silicate glasses, III-V semiconductors, II-VI semiconductors, II-IV semiconductors, transparent oxides, sol-gel glasses, spin-on-glasses -----

Cancel 62

In claim 63 replace "62" with ---61---

In claim 64 replace "62" with ---61---

In claim 65 replace "62" with ---61---

In claim 68 replace "62" with ---61---

In claim 69 replace "62" with ---61---

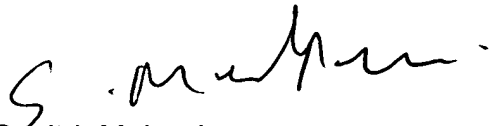
In claim 70, line 5 after "layer" add ---, wherein the plurality of honeycomb layers forms a periodic structure having a bandgap therein, and wherein each rod comprising a materials selected from the group consisting of polycrystalline silicon, amorphous silicon, silicon nitride, silicon dioxide, silicate glasses, III-V semiconductors, II-VI semiconductors, II-IV semiconductors, transparent oxides, sol-gel glasses, spin-on-glasses----

Cancel 71, 72

In claim 76, line 6 after "hexagonal-pattern layer" add -----, wherein the interconnected rods and the dots comprising a first material, wherein a second material filling in spaces between the interconnected rods of each-hexagonal-pattern layer and spaces between the dots of each interconnection layer, and wherein the first and the second materials being selected from the group consisting of polycrystalline silicon, amorphous silicon, silicon nitride, silicon dioxide, silicate glasses, III-V semiconductors, II-VI semiconductors, II-IV semiconductors, transparent oxides, sol-gel glasses, spin-on-glasses, gases and vacuum; ----

Cancel 77-79

Any inquiry concerning this communication should be directed to Savitri Mulpuri  
at telephone number 571-272-1677.



Savitri Mulpuri  
Primary Examiner  
Art Unit 2812